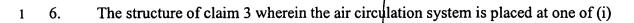


- 1. A structure having at least one outer wall, said outer wall further comprising:
  - an internal wall section;
- an external wall section displaced a predetermined distance from and juxtaposed with said internal wall section;
- an air flow passage between said internal wall section and said external
- 6 wall section; and
- an air circulation system providing an air flow through the air flow passage to inhibit moisture on the internal wall section.
- 1 2. The structure of claim 1 wherein the air provided is conditioned air to control 2 relative humidity of said air in said air flow passage.
- 1 3. The structure of claim 1 further comprising an attic that is in air communication with the air flow passage.
- 1 4. The structure of claim 1 further comprising a roof that is coupled to the external
- 2 wall section to form an air seal therebetween.
- 1 5. The structure of claim 3 wherein the air circulation system creates a positive air
- 2 pressure in the structure to cause at least some of said air to flow through the air flow
- 3 passage.



- 2 inside the structure; (ii) outside the structure system with an air conduit supplying air
- from the air circulation system to the air flow passage; and (iii) at least in part inside the
- 4 structure.
- 1 7. The structure of claim 1 wherein the at least one outer wall includes a plurality of
- 2 such outer walls and a roof to form an enclosed structure.
- 1 8. The structure of claim 1 wherein the external wall section includes an insulating
- 2 layer.
- 1 9. The structure of claim 8 wherein the external wall section further comprises:
- 2 a weather-resistant layer outside of the insulating layer; and
- a sheath inside of the insulating layer.
- 1 10. The structure of claim 1 wherein the internal wall section includes a liquid barrier.
- 1 11. The structure of claim 10 wherein the internal wall section further comprises a
- wall framing system to provide structural support to the internal wall section.
- 1 12. The structure of claim 11 wherein the internal wall section further comprises a
- 2 first sheathing between the liquid barrier and the wall framing system.

VAC-1001

9

The structure of claim 12 wherein the internal wall section further includes a 13. 1 second sheathing inside of the wall framing system. 2 14. The structure of claim 1 further comprising at least one sensor providing a signal indicative of presence of moisture. 1 15. The structure of claim 14 wherein the at least one sensor is placed at one of (i) in the air flow passage; (ii) in an attic of the structure; (iii) adjacent to the air circulation system. 3 16. The structure system of claim 14 further comprising a controller for controlling 1 the air circulation system in response to the signal from the at least one sensor. 17. An enclosed structure comprising: 1 at least one outer wall that includes 2 an internal wall section; 3 an external wall section displaced a predetermined distance from and 4 juxtaposed with said internal wall section; 5 an air flow passage between said internal wall section and said external 6 wall section; 7 8 an air circulation system for causing air to flow through the flow passage

to inhibit moisture on the inner wall section;

15

VAC-1001

6

at least one sensor for generating a signal indicative of moisture; and 10 a controller for controlling said circulation system in response to said 11 signal from said at least one sensor to inhibit moisture on the internal wall 12 section. 13 The enclosed structure of claim 17, wherein the at least one sensor comprises at 1 18. least one relative humidity sensor located proximate to the air flow passage for indicating the relative humidity of the air flow in said air flow passage. 3 The enclosed structure of claim 17, wherein the controller includes at least one 19. 1 circuit to interface with said at least one sensor, and a processor, acting according to 2 programmed instructions, to control the circulation system to provide a predetermined 3 relative humidity of the air flow in said air flow passage. A method for inhibiting moisture accumulation in an outer wall of a structure, 1 20. 2 comprising: providing an outer wall having an internal wall section and an external 3 wall section with an air flow passage therebetween; and 4 supplying air into the air flow passage by an air circulation system to 5

inhibit moisture accumulation on the internal wall section.

VAC-1001 16



- 1 21. The method of claim 20 wherein supplying air comprises supplying conditioned
- 2 air.
- 1 22. The method of claim 20 wherein supplying air comprises supplying air with an air
- 2 circulation system associated with the structure.
- 1 23. The method of claim 20 further comprising determining relative humidity of the
- 2 air inside the structure.
- 1 24. The method of claim 23 further comprising controlling supply of the air in
- 2 response to the determined relative humidity.
- 1 25. The method of claim 23 further comprising controlling the air circulation system
- 2 in accord to programmed instruction provided to a controller associated with the air
- 3 circulation system.